REMARKS/ARGUMENTS

The Office Action has been carefully considered. It is respectfully submitted that the issues raised are traversed, being hereinafter addressed with reference to the relevant headings appearing in the Detailed Action section of the Office Action.

Specification

Page 1 of the specification has been amended to replace docket numbers with corresponding US Application numbers. The Applicant submits that this amendment introduces no new matter.

The Applicant has amended claims. The Applicant respectfully submits that the amendments to the claim set are fully supported by the originally filed specification.

Claim 1 has been amended for clarity. The amendment to claim 1 substitutes the phrase "during the printing of the respective printed object" with the phrase "during the printing of the respective printed product". This amendment provides correct antecedent basis within claim 1.

Claim Rejections – 35 USC § 102

The Examiner rejects claims 1-22 under 35 U.S.C. §102(b) as being anticipated by Penn et al (US 5,594,652).

A claim is anticipated if all of its limitations are present in a single reference in the prior art. Because all of the limitations of the claims of the present invention are not present in Penn et al, as discussed below, the present invention is not anticipated by Penn et al and the rejection is traversed. Reconsideration and withdrawal of the rejection is respectfully requested.

Penn et al is directed to a system that involves manufacturing of desired three-dimensional objects. This involves dispensing a layer of liquid in soluble material onto a platform at predetermined locations. This liquid media hardens once it contacts the platform (col. 3, lines 65-67).

A water soluble media is then sprayed to encapsulate the hardened insoluble media. The uppermost surface of this encapsulant is planed, thereby removing a portion of the water soluble encapsulant to expose the underlying insoluble material for new platform deposition. These two-dimensional spray patterns are printed sequentially or "stacked" to form a three-dimensional object surrounded by a water soluble mold (col. 4, lines 3-13).

More specifically, Penn et al discloses a printhead 20 and platform 15 which serves as a base for a first, and subsequent, printing and spraying operations. Printhead 20 is adapted to spray melted wax, plastic or other material (col. 6, lines 54-62). Referring to fig. 1A, material 35 supports and encapsulates the desired insoluble three-dimension object 55 during fabrication. After immersion in a container of water only three-dimensional object 55 made of material 25 remains (col. 7, lines 54-59).

This is an entirely different system to the system claimed in the present claim 1. In the present invention, as defined in claim 1 of the present application, an object incorporation device inserts at least one non-printed object into at least one cavity created during the printing process. This feature is neither disclosed or suggested in Penn et al.

For the examiner's clarification, an exemplary embodiment of present claim 1 will be discussed with reference to fig. 6 of the present application. Referring to the present claim 1 and fig. 6, the invention requires a system 600 including "an object incorporation device (602) that inserts at least one non-printed object (604) into at least one cavity (608) created during the printing process ... of the respective printed product".

Although Penn et al discloses a system that prints a three-dimensional product, that is product 55 shown in fig. 1A of Penn et al, there is no disclosure or suggestion in the cited document of intentionally creating "at least one cavity created during the printing process" or "an object incorporation device that inserts at least one non-printed object into at least one cavity".

The examiner cites col. 20, lines 51-59 of Penn et al to disclose this feature. However, it is respectfully submitted that this passage of Penn et al provides no basis whatsoever for disclosure of "an object incorporation device that inserts at least one non-printed object into at least one cavity created during the printing process". Col. 20, lines 51-59 of Penn et al

discusses a decision making process involving an analysis step of selected X, Y and Z dimensions.

The applicant respectfully submits that Penn et al is wholly silent on providing an object incorporation device that inserts at least one non-printed object into at least one cavity created during the printing process. As such, the applicant respectfully submits that claim 1 is not anticipated by Penn et al. Likewise, the applicant submits that none of the dependent claims 2-22 are anticipated by Penn et al.

CONCLUSION

In view of the foregoing, it is respectfully requested that the Examiner reconsider and withdraw the rejections. The present application is believed to be in condition for allowance. Accordingly, the Applicant respectfully requests a Notice of Allowance of all the claims presently under examination.

Very respectfully,

Applicant: 

KIA SILVERBROOK

C/o: Silverbrook Research Pty Ltd
393 Darling Street
Balmain NSW 2041, Australia

Email: kia.silverbrook@silverbrookresearch.com

Telephone: +612 9818 6633

Facsimile: +61 2 9555 7762